

## Reply to International Search Report (Translation)

The CN2221620Y (referenced document one) and CN2381761Y (referenced document two) was referenced by the International Preliminary Examination Authority against claims 1, 4, 5 and 6.

The International Preliminary Examination Authority held that despite of the fact that the referenced document one did not disclose the supporting attachment (3) installed at the connecting location of the ladder belt (6) and ladder rung (4), however, said claims 1, 4 and 5 are obvious to any technical people in the relevant field in comparison with the referenced document one, which means non-conformity with the involvement on inventive step (to be non-obvious) stipulated in the Article 33 (3) of PCT. Based on the referenced document one with referenced document two combined, a conclusion is reached that the technical design in said claim 6 for protection is obvious to technical people, so, said claim 6 is not in conformity with the inventive step (to be non-obvious) stipulated in the Article 33 (3) of PCT.

The applicant, however, did not agree with the above preliminary examination opinions and overcome the examiner's rejections with the following arguments:

The referenced document one refers to a folding emergency ladder, which comprises two hooks (1), two cords (6) fixed to ends of the two hooks (1) and rungs (4) fixed to the two cords. Although there is also a strip-shaped supporting plate (3), such supporting plate (3) is fixed to ends of said hooks (1), functioning to form a hooking-and-hanging device together with the connecting plate (2) and the two hooks (1) at top of said emergency ladder, while in this patent application there are multiple supporting attachments (6) that are installed at the connections of the ladder belts (4) and ladder rungs (5), functioning to keep the ladder rungs at a certain distance from the wall surface to facilitate ladder users to climb. Conclusion: shapes, structures, locations, their functions and performances of the two ladders are totally different. This patent application is essentially different from the referenced document one, and said claim 1 together with claims 4, 5 do confirm to the Article 33 (3) for involvement on inventive step (non-obvious) of PCT.

The referenced document two refers to another emergency ladder for multi-storied buildings, which has rungs (3) wrapped with fire-retardant asbestos cloth that only functions to prevent fire, while the rungs (5) in this patent application have outer layers of fire-retardant braided belts that can not only prevent fire but also greatly increase strength of the rungs (5) and facilitate their fixing onto the left and right ladder belts (4). Conclusion: functions and performances of the two ladders are substantially different, and said claim 6 also conforms to the Article 33 (3) for involvement on inventive step (non-obvious) of PCT.

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The International Preliminary Examination Authority is hereby kindly asked to take the above opinions of the applicant into consideration and make re-evaluations on said claims 1, 4, 5 and 6 for their novelty, involvement on inventive step and industrial applicability.

After receipt of opinions and statements of the applicant, the International Preliminary Examination Authority made re-examination on novelty, involvement on inventive step and industrial applicability of PCT/CN03/00878 and the examiner withdrew his rejection; Issued a preliminary examination report making affirmation that all said claims 1 to 6 meet the requested novelty, involvement on inventive step and industrial applicability of the Article 33 (2), (3), (4) of PCT.

Referenced document one

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[19] 中华人民共和国专利局

[14] 专利分类号 CN 2221620Y



# [12] 实用新型专利说明书

[21] ZL 专利号 95209669.2

[51] Int. Cl.<sup>6</sup>

B64F 11/06

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B64C 1/56

权利要求书 1 页 说明书 2 页 附图页数 2 页

[54] 实用新型名称 折叠式救生梯

[57] 摘要

本实用新型是一种折叠式救生梯，适合高层建筑上的人员在发生火灾或出现紧急事故放下使用。本实用新型包括吊钩、连接板、踏板和绳子，它的吊钩有二个，吊钩由金属管弯曲而成，吊钩的头部为可钩，吊钩的根部是直插状，每个吊钩的根部均固定一条条状支撑板，连接板的二个通孔分别套住二个吊钩的根部，连接板放在条状支撑板的上面，吊钩的根部有一个紧固吊钩与绳子的固定钉。本实用新型结构简单、体积小、使用安全可靠，是家庭、宾馆理想的应急救生梯。



(BJ)第 1452 号

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## 权 利 要 求 书

1、一种折叠式救生梯，它包括吊钩、连接板、踏板和绳子，其特征在于：此吊钩(1)有二个，吊钩(1)由金属管弯曲而成，吊钩(1)的头部为弯钩，吊钩(1)的根部呈直线状，每个吊钩(1)的根部有一条条状支撑板(3)，条状支撑板(3)的一端与吊钩(1)的根部垂直、并与吊钩(1)根部紧固，条状支撑板(3)的另一端与吊钩(1)的弯钩同向，并与吊钩(1)在同一平面上；连接板(2)有二个通孔，连接板(2)的二个通孔分别套住二个吊钩(1)的根部，连接板(2)放在条状支撑板(3)的上面，吊钩(1)的根部有一个紧固吊钩(1)与绳子(6)的固定钉(7)，踏板(4)是凸形的壳体，踏板(4)的底端有凹槽。

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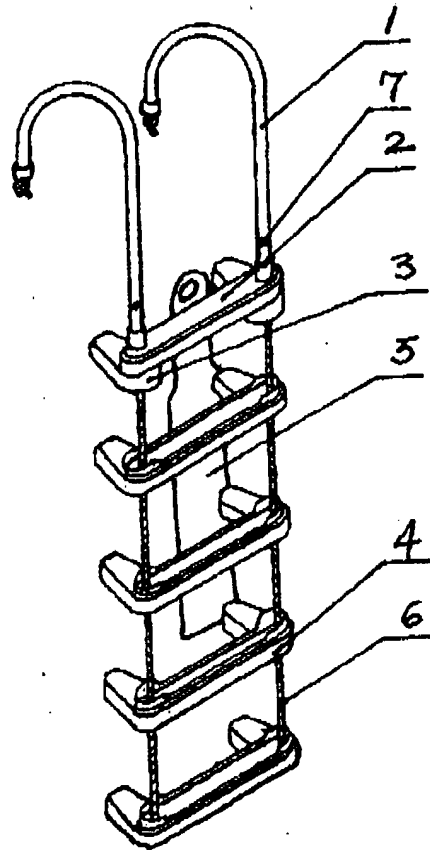


图 2

## reference document two

1 (1920x2760x2 tiff)

[19]中华人民共和国国家知识产权局

[51]Int. Cl.

E06C 1/383

## [12] 实用新型专利说明书

[21] ZL 专利号 98208371.8

[45]授权公告日 2000年6月7日

[11]授权公告号 CN 2381781Y

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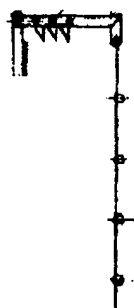
[21]申请号 98208371.8

权利要求书 1 页 说明书 1 页 附图页数 3 页

[54]实用新型名称 楼房救生梯子

[57]摘要

一种楼房救生救生梯子,是由梯头挂钩(1)(2)与钢丝绳(5)与踏板(3)连接组成,平时调整挂钩(1)与(2)的尺寸,折叠起来便于保管。使用时可将梯头挂在窗台或阳台上再将其余部分拉下来,就形成一梯救生,本实用新型结构简单,便于楼房居民使用,是楼房火灾等其它意外事故最佳的逃生工具。



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## 权 利 要 求 书

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一种折叠软梯子，梯头是由挂齿（1）（2）组成其特征在于挂齿（1）同挂齿（2）可折叠合并，挂齿（1）可移动调整尺寸，挂齿（2）内有孔、铜丝绳（5）有绝缘皮脚架（3）有阻燃石棉布和玻璃钢管构成，脚架（3）内有暗铜板（6）卡子（4）包有绝缘皮构成一折叠梯子。

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## 说明书

### 楼房救生梯子

本实用新型是一种高楼居民救生的折叠梯子，人们通常用的梯子，是登高。而这种梯子是在楼房发生火灾时，从窗户或阳台放下后可脱险的折叠梯子。这种梯子即阻燃，又不导电，平时放置不占太大空间。

本实用新型的解决方案是这样实现的：

本实用新型是由伸缩，又可折叠的梯头（1）（2）为挂头，由两根钢丝绳和外边绝缘皮（5），钢丝绳构成两根玻璃钢缠绕过的踏梁（3）的连筋，踏梁内有暗铁板（6），踏梁由侧卡子（4）紧固所组成的一个整体，就形成一个梯子。

本实用新型的实施例如附图所示：

附图 1 是本实用新型上部展开结构示意图。

附图 2 是梯头和踏梁与钢丝绳结构示意图。

附图 3 是钢丝绳与踏梁紧固卡子的结构示意图。

在本实施例中卡子（4）钢丝绳（5）是金属材料套上绝缘皮，踏梁（3）两头与钢丝绳连接处用金属片包住并固定。梯子折叠时将挂头（1）（2）合并一起，踏梁（3）和钢丝绳（5）折叠收起。

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说明书附图

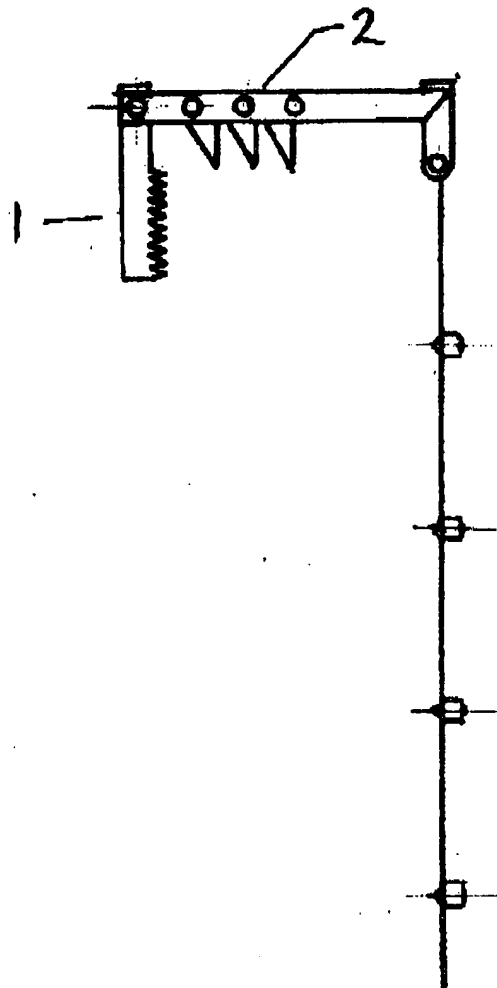


图 1



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说明书附图

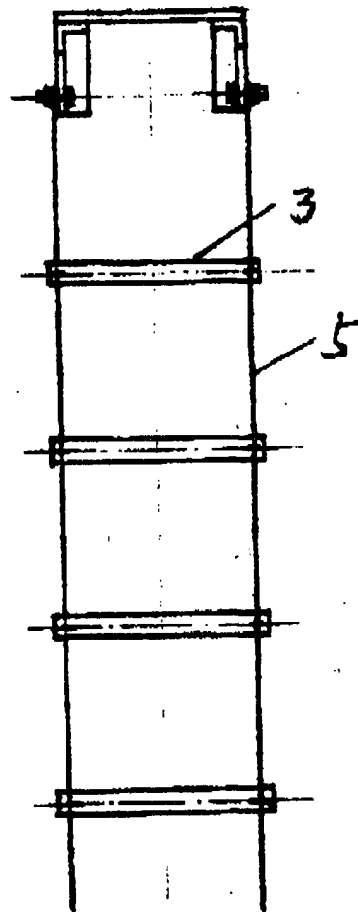


图 2

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说明书附图

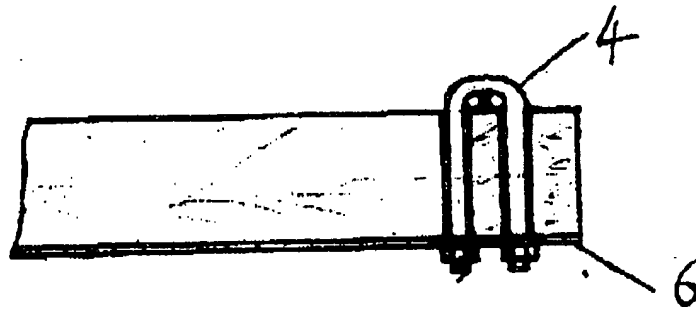


图 3